The Renovator

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Training for new H&RP begins

The difference between operating a Model T and today's automobile is not in the basic functions, but in the number of features and options offered. Much like trading up to a new car, Heating and Refrigeration Plant employees are learning about the "features and options" their new machines will offer.

The training marks one of the first steps toward bringing the new plant on-line, according to Capt. Hal Creel, one of the project engineers for the new plant.

Vendor training

"Vendor training will be conducted for each of the various components such as the chillers, boilers, electrical system and distribution control system," said Creel. "Training is further broken down into specialized sub-training for each system, which means close to 25 different types of vendor training are scheduled."

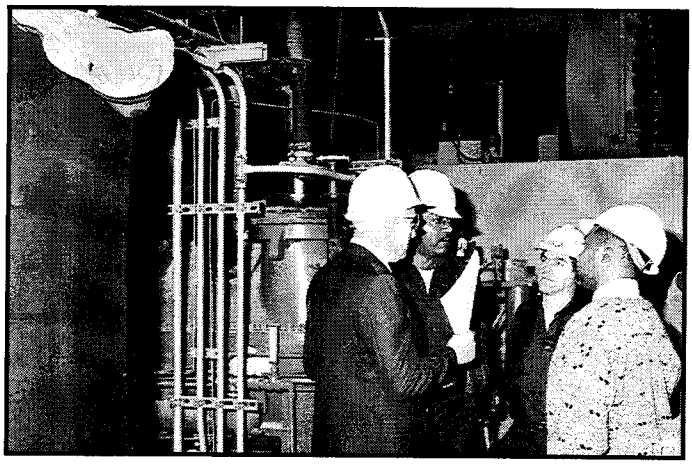
Systems integration

Prior to the vendor training, the first of two systems integration training classes was held for Heating and Refrigeration Plant supervisors. "The systems integration training is crucial to understanding how these various systems work together," said Don Kuney, Heating and Refrigeration Plant manager.

According to Kuney, the class was extremely valuable because Fossil Consultants, the contractor, incorporated "real life examples" into the training.

"The first session followed the flow path of the chillers and their supporting subsystems, then onto condensation, outfall and recirculation," explained Kuney.

The importance of linking the various areas is important to both safety and maintenance, according to Kuney. "The integrated systems training helps trouble-shoot problems, and also ensures proper shutdown of equipment that may be more involved because of the extensive computer operations of the new systems."



Pentagon Utility Plant employees attend a vendor training session in the new Heating and Refrigeration Plant.

Operating manuals

In addition to the systems integration training, Fossil Consultants is also writing systems operating and training manuals. The manuals will be in an electronic format that will enable plant employees to access the information over their computer network, as well as printed.

"The systems integration training was not included in the original training plan, but based on previous training experiences with the old plant, I felt it was necessary," said Kuney. He presented his expanded training needs to the Pentagon Renovation office.

"We hope, by providing feedback and making our expectations for the new plant known, to get a final product that meets our requirements and makes for a smooth transition," said Kuney.

This final coordination is meant will ensure accomplishment of the Renovation Program's commitment that all tenants continue to receive uninterrupted heating and refrigeration services.

Utilities Tunnel gets new pipe and new building access

The Center Courtyard Utilities Tunnel is undergoing many changes, both above and below ground. Tenants have probably noticed a grey-colored stone mixture on top of the tunnel, but most probably did not realize that this a final preparation before the concrete is placed.

"The sub-grade material, or dense-graded aggregate is currently being placed," said Anne Marie Irwin, project engineer. "There will be two types of sub-grade material between the top of the tunnel and the above ground concrete." Aggregate provides a stable base for the roadway.

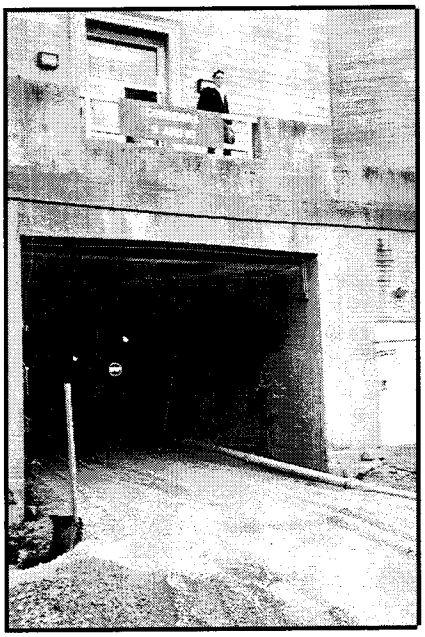
The work above ground has appeared to move a little more slowly than anticipated, which Irwin attributes to the weather. "The recent rain has slowed the sub-grade placement somewhat, but we're still getting the job done."

While work above ground was affected by the weather, work below ground has encountered no such obstacles, and several milestones were met.

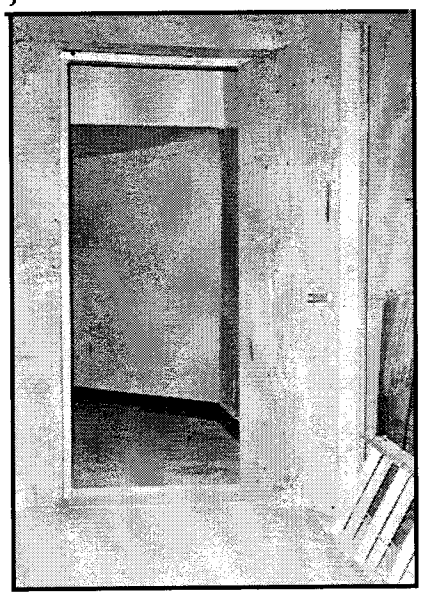
"The tunnel was opened into the building at apexes 7/8 and 9/10; pipes are being hung in the leg between apexes 5/6 and 7/8; and electrical conduits are being installed in both legs," said Irwin.

The opening of the tunnel into the building provides several advantages. "The contractor can bring pipe, material and equipment into the tunnel via the stairwells instead of the ladders," said Irwin. This makes the job both safer and more efficient, according to Irwin.

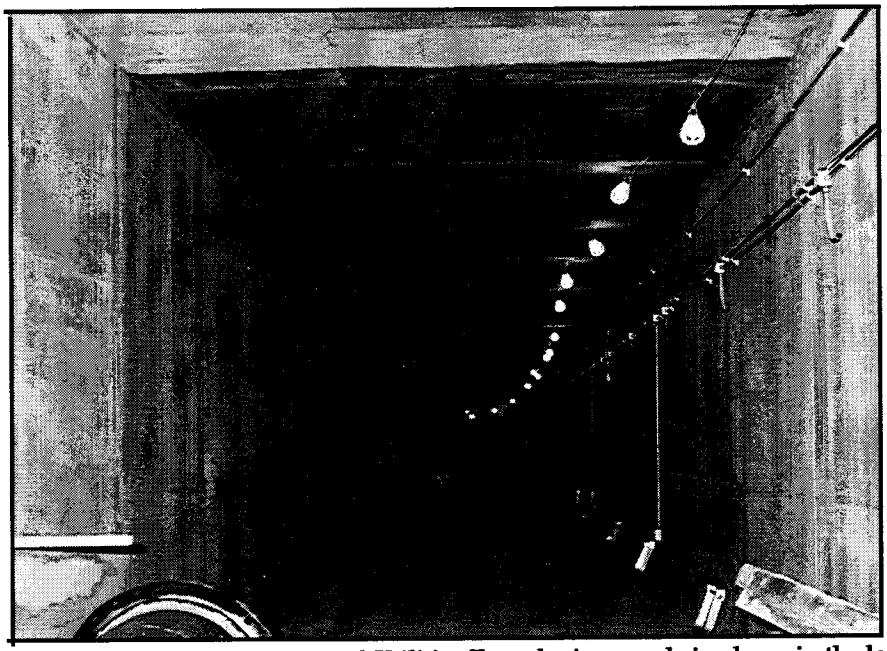
Irwin credits much of this significant progress to Gary Coldsmith, superintendent for John C. Grimberg, Co., the contractor. "We seem to have the right mesh," said Irwin. "Gary has a lot of field experience and has made some very practical suggestions, which makes our job easier."



The drive at Corridors 9/10 is now open and aggregate covers the ground.



The new door at the 9/10 apex allows the contractor to bring pipes and equipment into the tunnel by stairwell instead of the 20-foot ladders previously used.



Inside the new Center Courtyard Utilities Tunnel, pipes are being hung in the leg between apexes 5/6 and 7/8.

Waterproofing makes its way across River Terrace

Repair of the first phase of the River Terrace waterproofing is currently over 50 percent complete. "Right now, we are still working on the waterproofing contouring slab, which will ensure the proper slope for drainage," said Bob Messie, project engineer.

The Phase One area is roughly divided (by the sidewalks) into three tracts.

"Concrete has been placed on the first third (near the north planter), insulation on the next third (the center section), and the final third (near the south planter) has just had the structural slab checked for soundness," said Messie.

The work is moving steadily across the area, and according to Messie, repair of the sidewalk steps will complete the waterproofing of the parade field area.

The rainy weather has been a challenge, but construction has continued. While winter means that there are fewer ceremonies, those that are scheduled continue to be conducted on the Terrace.

Work in the parade field is now far enough along that arrangements are being made in anticipation of the next phase of work. "Preparations for interim parking are underway, and the sidewalks are down," said Messie.

Affected tenants will soon be notified of the work plans for the next phase.

Contractors finish concrete and place insulation as part of the River Terrace waterproofing.

Renovated basement to offer new phone system

Pentagon tenants who will some day occupy the renovated Phase I area of the basement may wonder what they can expect from their telecommunication lines.

"Tenants can expect the same level of service they have now, but provisions are being made that will allow the area to transition to the future Integrated Services Digital Network (ISDN)," said Brenda Wilderson, product leader for program integration, Information Management & Technology (IM&T).

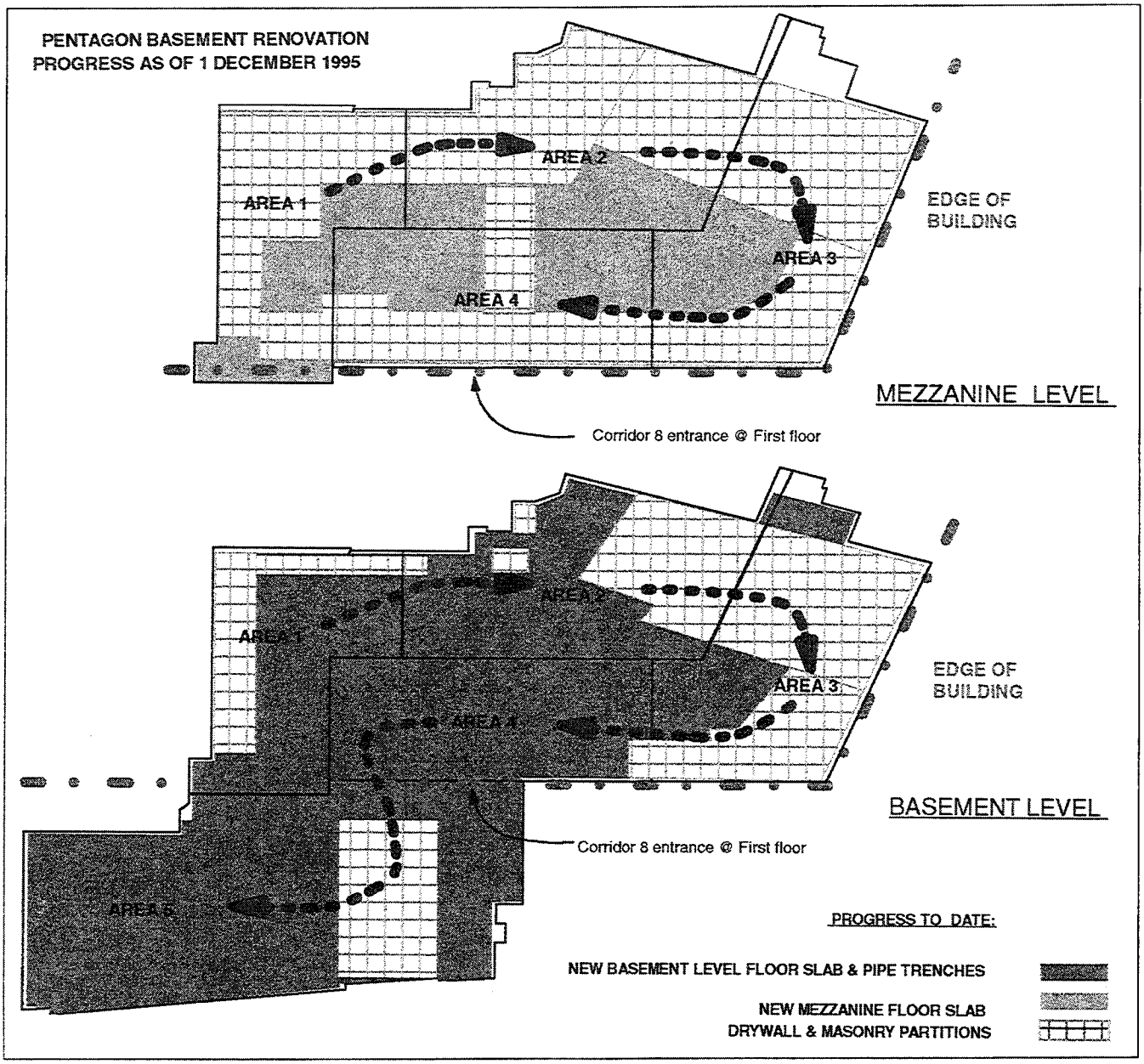
While ISDN may sound intimidating, it offers advanced phone features that many tenants may already be familiar with, but currently don't have. "ISDN offers such things as caller ID, data ports for personal computers that are higher speed than the analog system, and simultaneous voice/data calls," said Jack Faherty, lead switch engineer, Mitre Corporation (a contractor for IM&T).

While access to the new system may sound simple, much like other aspects of the renovation, it requires that both existing and future capabilities be linked in such a way that a gradual turnover to the new system ensures uninterrupted service.

During the Phase I basement renovation, cables are being linked from the new switch room, which will contain an Optical Remote Module (ORM), to the existing 5ESS switch located in Corridor 1, D Ring. "The existing 5ESS switch currently has over 25,000 users," said Faherty.

However, the key to this transition is the ORM. "The ORM will eventually be expanded and upgraded to become the main switch for all Pentagon tenants when the building renovation is complete," said Wilderson. "Project Management, IM&T and their contractor will be transitioning tenants as their areas are renovated," she added.

The advantages of using an ORM are cost and flexibility. "The ORM allows us to reuse our existing equipment because it is not a stationary piece of equipment—it can be moved to accommodate renovation changes," said Faherty.



The monthly basement "progress to date" graphic now includes the mezzanine and basement level. Work on both levels must now be tracked separately because of the large areas and variations in types of construction.

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